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10/080,503	02/22/2002	Robert I. Higuchi	015110.0058.UTL1	8671

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EXAMINER

CRANE, LAWRENCE E

ART UNIT PAPER NUMBER

1623

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.:

10/080,503

Applicant(s)

HIGUCHI ET AL.

Examiner

L. E. Crane

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on February 1, 2005 (amdt).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-77 and 80-107 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-77 and 80-107 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Claims 78 and 79 have been cancelled, claims 1-3, 5-7, 9, 11-18, 20-21, 23, 25, 27, 29-30, 32, 35, 49-50, 58, 60-74, 80-88 and 90-107 have been amended, the disclosure has been amended, no new claims have been added as per the amendment of February 1, 2005. A supplemental Information Disclosure Statement (IDS) filed February 1, 2005 has also been received with all cited references and made of record.

Claims 1-77 and 80-107 remain in the case.

The disclosure is objected to because of the following informalities:

Incorporation by reference of essential material by reference to a foreign application or a foreign patent or to a publication inserted in the specification is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by applicant, or a practitioner representing applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCAP 1973); *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

In each of the above cases, the incorporations are of the complete document, and fails to properly point out the particular portions of the US patent(s) being incorporated; see MPEP §608.01(p)(1)(A) noting *In re de Seversky* and in the same paragraph (column 2 of p. 600-769, August 2001 edition) the instruction which reads as follows: “[p]articular attention should be directed to specific portions of the referenced document wherein the subject matter being incorporated may be found.”

In addition, each of the above incorporations represents a failure to provide specific disclosure of how to make and/or use. Therefore, the above citations of the *Hawkins* decisions continue to apply to all incorporations by reference.

The attempt to incorporate subject matter into this application by reference to patents and to non-patent literature at pages 110, lines 22 and 25-26, and page 111, lines 8-9 of the disclosure is improper because the incorporated has not been made as required by the *Hawkins* and related decisions noted above.

Appropriate correction is required.

Applicant's arguments filed February 1, 2005 have been fully considered but they are not deemed to be persuasive.

Applicant argues beginning at page 30 of the instant response that the incorporations objected to are of subject matter which "illustrate the state of the art at the time of original filing." Examiner notes that there is a place in the application for such disclosure wherein "incorporation by reference" is not limited; namely the "BACKGROUND" portion of the application wherein applicant is free to transfer all such incorporations. Otherwise applicant is again respectfully requested to either delete the incorporation by reference terminology or follow the instructions of the *Hawkins* decisions and the MPEP. Applicant's response also suggests that applicant presumes the right to determine for the USPTO what references are "essential" and what references are not. Examiner respectfully disagrees, maintains the right of the USPTO to object to improper incorporations by reference, and finds no reason within applicant arguments to conclude that the above objection is inappropriate.

The rule being advanced is that anything incorporated by reference outside of the Background portion of the disclosure is assumed to be part of the invention and must be essential, and therefore that *Hawkins* must be applied. Applicant is again respectfully requested to delete the incorporations, follow the *Hawkins* decisions, or move said incorporations to the BACKGROUND portion of the disclosure. The above stated objection is hereby maintained.

Claims **1-55, 58-77 and 80-107** are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention; the scope is excessive in view of the disclosed exemplifications.

The definitions of substituents in claim 1 is directed to a vast number of chemical compounds which have not been described in the instant disclosure in a manner permitting the ordinary practitioner to have the guidance necessary to make a very large proportion of the compounds encompassed. Examiner finds only about 150 compounds which are precursors, intermediates or final products (variously substituted [1,4]oxazino[2,3-f]quinolin-8-ones)

provided in the "Examples" section. No other tricyclic ring nucleus has been disclosed as having been synthesized within the examples. And additionally none of the exemplary compounds discloses a structure with the multiple layers of substituents on top of substituents provided for by the noted claim or provides a complete description of how to make same.

Applicant is respectfully requested to substantially narrow the scope of the instant generic and sub-generic claims to reflect the scope of the contribution actually made.

Applicant's arguments filed February 1, 2005 have been fully considered but they are not deemed to be persuasive.

Examiner notes that the all encompassing terms at the end of the definition of many variable with claim that various listed groups "... may be optionally substituted" has been deleted in favor of the selective use of the term "optionally substituted" except in the case of "C<sub>1-8</sub> alkyl" in the definition of variable R<sup>18</sup> in claims **1 and 58**. Careful inspection of the Marui patents suggests that compounds including the substituent group "-CH<sub>2</sub>-OH" have thereby been avoided. Anyone reading the original or the amended claims or both would not have otherwise known that "hydroxyl" was an "optional substituent." For this reason examiner suggests that the term "optionally substituted" should be specifically defined in the independent claims (claims **1 and 58**).

Examiner notes that while applicant appears to have responded at length to the following enablement rejection, it is appears that applicant has failed to respond with arguments in opposition to the above "Scope" rejection.

Claims **1-55, 58-77 and 80-107** are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one of ordinary skill in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The fundamental issue here is whether practicing the full scope of the instant invention is possible without undue experimentation. As provided for in *In re Wands* (858 F.2d 731, 737; 8 USPQ 2d 1400, 1404 (Fed Cir. 1988) the minimum factors to be considered in determination of whether a conclusion of "undue experimentation" is appropriate are as follows:

A. The breadth of the compound claims is excessive because of the presence of numerous Markush groups and nested Markush groups; see claim 1 in particular. In addition, the repeated use of the term “may be optionally substituted” without specifying the substituents implied thereby renders the breadth excessive because said term implies that the unnamed substituents is/are open to all possible alternatives. In method of treatment claims 80-107, the breadth of the claims is also excessive because of the presence claim 80 of the term “having a condition mediated by an androgen receptor,” which extends to all such conditions, known and unknown, and without specific test data to substantiate any one disease treatment. Additionally, the terms “a [disease] process mediated by an anabolic agent” and “cancer” appearing in claims 93 and 107 are both excessively broad in view of their generic coverage of areas which are not properly referred to generically when treatments are proposed in the absence of adequate supporting evidence.

B. The nature of the invention includes a method of testing, a method of purification, and a vast number of methods of medicinal treatment wherein compounds of instant claim 1 are administered to a host in need of said treatment. Claims 1-55 and 58-76 are directed to a vast array of compounds defined by a series of Markush groups and pharmaceutical compositions thereof.

C. The state of the prior art is defined by the prior art presently cited by applicant and by examiner and particularly by PTO-892 references F and G wherein anticipatory compounds and compositions have been disclosed.

D. The level of one of ordinary skill in the relevant chemical synthesis arts is high because the syntheses of many compounds very closely analogous to the instant claimed compounds are known in the art (PTO-892 references F and G). However, the level of one of ordinary skill in the medical arts is moderate because it is unclear which if any of the compounds disclosed herein are active against one or more specific disease conditions.

E. The level of predictability in the art is indeterminate in light of the instant disclosure wherein there is no clear showing that compounds which are active as androgen receptor agonists or antagonists are actually effective in the treatment of any specific disease condition. If applicant has additional art bearing on this question, examiner respectfully requests submission of same as applicant's earliest convenience.

F. The amount of direction provided by the inventor is limited to the chemical syntheses of numerous [1,4]oxazino[2,3-*f*]quinolin-8-ones and data identifying which compounds are antagonists and which are agonists in the presence of known androgen receptors. However, no other chemical species have been disclosed as having been synthesized, isolated, or subjected to any test regimen to determine possible medicinal activity. Also, no data or other guidance has been provided to support claims directed to the treatment of one or more of the numerous specific disease conditions listed in claims **85, 86, 90, 91, 93-94, 100-101 and 107**.

G. The existence of working examples is limited to those noted in the previous section of this rejection.

H. The quantity of experimentation needed to make or use the invention based on the content of the disclosure is deemed to be excessive because the instant specification only discloses how to make compounds with a [1,4]oxazino[2,3-*f*]isoquinolin-8-one ring system, the 8-O-protected analogues, thereof and precursors prepared during the synthesis thereof. In addition the specification only discloses biological testing results limited i) to testing of the compounds noted, and ii) wherein the testing is limited to showings of agonist or antagonist activity in the presence of a receptor, but no showing of efficacy in the treatment of any one of the specific disease conditions listed in any of claims **85, 86, 90, 91, 93-94, 100-101 and 107**. Applicant is respectfully requested to provide additional data to support specific methods of treatment claims or to delete claims **80-107** directed to same. While applicant has shown that the compounds disclosed herein have potential utility in the treatment of disease conditions wherein an androgen-sensitive receptor has been implicated, there has been no showing that any particular disease condition may be effectively treated by administration of any single compound of claim 1 to any host, including cells in culture. Applicant is further reminded that claims directed to the treatment of "cancer" and "HIV" still require an evidentiary showing in support of same: e.g. see MPEP §2107.03 (III) and therein *Ex parte Balzarini*, 21 USPQ 2d 1892 (Bd Pat App & Inter, 1992) and other cases for guidance concerning enablement for medicinal claims.

Applicant's arguments filed February 1, 2005 have been fully considered but they are not deemed to be persuasive.

Beginning at page 37 of the instant response, applicant argues that the term “optionally substituted” is defined in the specification, and subsequently quotes a definition from pages 11-12 of the disclosure. Examiner agrees that the definition applicant quotes is in the specification at the location alleged, but fails to understand why this definition is not found in the independent claims. It is the claims which define the scope of the claimed subject matter. Examiner also notes that the quoted definition does not meet the requirements of the statute because for a number of reasons said definition fails to have adequately defined metes and bounds (35 USC §112, 2nd ¶).

Applicant then alleges beginning at the bottom of page 37 of the instant response that “[i]t is not necessary that one skilled in the art be able to predict precisely which compounds will be the most active for a given disease,” arguing that a “screening assay” described in the disclosure makes the experimentation “routine.” Examiner respectfully disagrees and directs applicant’s attention to *Ex parte Balzarini*, 21 USPQ 2d 1892 (Bd Pat App & Inter, 1992) which stands in part for the proposition that there is an irreducible minimum of testing required to establish that a chemical compound has pharmaceutical/medicinal efficacy. Additionally as noted in *Brenner v. Manson*, 148 USPQ 689 (S. Ct., 1966) at p. 696; column 1, “[A] patent is not a hunting license. It is not a reward for the search, but compensation for its successful completion.” Applicant has provides some indication that the compounds disclosed herein have various degrees of androgen receptor binding capability and therefore may have medicinal activity, but has not gone beyond this to demonstrate actual activity against any specific disease condition with either *in vitro* or *in vivo* testing results in any living host. Specifically examiner notes the presence of the term “cancer” in claims **85, 89, 93, 101 and 107**, a term which examiner reads to include cancer of the brain, cancer of the liver, cancer of the pancreas and cancers induced by infection with certain HTLV viruses (HTLV-II) including HIV (HTLV-III), suggesting that the instant claims may be read to include treatment of HIV itself. Examiner views applicant’s submissions to date as an invitation to experiment in the medicinal area, not a showing which provides the minimum disclosure required to enable a medicinal method of treatment of any disease, let alone a neoplastic disease condition or Karposi’s sarcoma in HIV patients.

Therefore, examiner concludes that the instant compound claims and pharmaceutical composition claims are enabled in part, but that claims **80-107** which are directed to methods of treatment are not enabled by the instant disclosure. Because applicant has included some



testing data, submission of additional data in a declaration submitted under 37 C.F.R. §1.132 is suggested as a method of supporting claims directed to methods of treatment limited to the treatment of specific disease conditions.

The compound and pharmaceutical composition claims are only enabled in part because the instant claims include terms which are incomplete defined (aryl, arylalkyl, heteroaryl, etc.) because said terms typically

- i) lack any upper bounds as to size,
- and when hetero atoms are suggested said terms,
- ii) fail to define which hetero atoms are to be selected from,
- iii) the number of said hetero atoms, or
- iv) the location(s) or the ring system(s) containing said hetero atom(s), and
- v) because a proper definition of “optionally substituted” is not present in any independent claim.

Examiner also notes that newly cited prior art (references **L, M & N**), which cannot be cited in an art rejection but which is very close, implicates the parts of the instant claims wherein spiro structures are claimed (e.g.: “R<sup>3</sup> and R<sup>4</sup> taken together form a three to eight membered saturated or unsaturated carbocyclic or heterocyclic ring,” etc., etc.). Examiner has not found any heterocyclic or homocyclic spiro examples in any of the seven illustrated synthetic schemes or any of the compounds specifically reported by the disclosure. Again examiner refers applicant to the teachings of *Brenner v. Manson* supra and respectfully requests additional disclosure in the form of declaration evidence and a substantial narrowing in part by definitional improvement of the claims.

Applicant cites the **Singh et al.** and the **Boyer** references in support of the view that “[some other] androgen receptor modulators” are known to be “therapeutic agents.” Examiner does not question that there are other compounds which have activity against specific disease conditions as noted in the cited prior art, but fails to see any *in vitro* or *in vivo* testing data herein to support the extrapolation of this conclusion to any of the instant claimed compounds.

In summary, applicant is encouraged to narrow and refine the scope of the instant claims and to submit any and all available data to further enhance enablement of the claimed

compounds and to establish the medicinal activity thereof in the treatment of specific disease conditions.

Claims 1-7, 9, 11-18, 20-21, 23-36, 39, 41, 45, 49-51, 56-58, 60-74, 76-77 and 86-107 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 (lines 14, 19, 24, 37, 48, 52, 56, 59, 63, 66, 70, 73, 76, 80, 84-88 and 90), 2-7, 9, 11-18, 20-21, 23-36, 39, 41, 45, 49 (many), 50 (many), 51, 56-57, 58 (many), 60-74, 76-77, 85-86, 89-90, 93-94 and 101-102, the term "selected from the group of" is incomplete because Markush groups are properly formulated with the term -- selected from the group consisting of [A], [B], ... and [R] --. See MPEP §2173.05(h)(I). See also claim 57 at line 26 wherein the Markush group format is incomplete because the term -- and -- is missing.

Applicant's arguments filed February 1, 2005 have been fully considered but they are not deemed to be persuasive.

Applicant concludes that " 'selected from the group of' is closed to additional members and, thus, permitted." Examiner assumes that applicant has prepared the instant claims with a computer equipped with word processing software and can therefore insert the term -- consisting -- as requested without undue difficulty. Insertion of the noted term in the proper location is again respectfully requested.

In claims 1-3, 5-7, 9, 11-18, 20-21, 23, 25, 27, 29-30, 32, 35, 49, 58, 60-62, 64-71 and 73-74 the term "optionally substituted" is incomplete for failure to specify the substituents implied thereby. See also claims 4, 22, 24, 28 and 36 wherein the term "optionally substituted" continues to have the same problem, mk.

Applicant's arguments filed February 1, 2005 have been fully considered but they are not deemed to be persuasive.

Examiner notes that the all encompassing terms at the end of the definition of many variable with claim that various listed groups  
" .. may be optionally substituted" has been deleted in favor of the selective use of the term

“optionally substituted” except in the case of “C<sub>1-8</sub> alkyl” in the definition of variable R<sup>18</sup> in claims **1 and 58**. Careful inspection of the Marui patents suggests that compounds including the substituent group “-CH<sub>2</sub>-OH” have thereby been avoided. Anyone reading the original or the amended claims or both would not have otherwise known that “hydroxyl” was an “optional substituent.” For this reason examiner suggests that the term “optionally substituted” should be specifically defined in the independent claims (claims **1 and 58**).

Applicant’s argument that the definition found in the disclosure is adequate is found to be inadequate because the quoted definition fails to meet the requirements of the statute for a variety of reasons noted in examiner’s response following a previous rejection.

In claim **87** the term “modulate” found is indefinite for failure to indicate what specific treatment action(s) or effect(s) is(are) intended by said term and which particular compound(s) is(are) associated with each specific effect(s). The same problem extends to dependent claims **88-107**.

Applicant’s arguments filed February 1, 2005 have been fully considered but they are not deemed to be persuasive.

Applicant argues that the term “modulation” may mean either “activation” or “inhibition,” but apparently fails to see that this is inherently contradictory and confirms examiner’s view stated above that the instant claims are not enabled. If the claims were enabled, then applicant might be able to tell the ordinary practitioner which definition of the noted term “modulate” applies to which specific compounds, and furthermore to possibly provide a correlation of “activation” compounds and “inhibition” compounds with the treatment of various different specific disease conditions. But this will not be possible until either *in vitro* or *in vivo* test results are of record herein.

In claims **1 and 58** in the definition of variable R<sup>7</sup>, the terms “C<sub>1</sub>-C<sub>8</sub> heteroalkyl” and “OR<sup>9</sup>” are directed to substantially overlapping subject matter; i.e. the latter is entirely encompassed by the former. Therefore, deletion of the latter term is respectfully requested. For the same error, see also the definitions of R<sup>1</sup> and R<sup>2</sup> in the noted claims and claims dependent therefrom.

Applicant's arguments with respect to claim 1 have been considered but are deemed to be moot in view of the new grounds of rejection.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

"A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent."

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States."

Claims 1-7, 12-14, 16-18, 20-26, 32-34, 37, 41-46, 49-53, 58-62, 64-70, 73, 75 and 77 are rejected under 35 U.S.C. §102(b) as being anticipated by **Kyotani et al.** '324 (PTO-1449 ref. AC). Ref. AG includes an equivalent disclosure.

Applicant is referred to compounds defined by structure "(1e)" at column 3 of the '324 reference. See also Examples 346-349 at columns 175-176.

Claims 1-7, 9, 11-14, 16-18, 20, 25-28, 32-34, 37-38, 41-42, 45-46, 49, 52-53, 58-68, 70 and 76 are rejected under 35 U.S.C. §102(b) as being anticipated by **LaMontagne et al.** (PTO-1449 ref. BB).

Applicant is referred to page 965, Scheme 1, structures 4h-4k; page 966, Table II, compounds 2d and 2e; page 966, Table III, compounds 3f-3g; page 967, Table IV, compounds 4h-4k and associated explanatory text and Tables wherein the instant compounds and their pharmaceutical compositions are disclosed.

Claims 1-7, 9, 11-14, 16-18, 20-21, 37-38, 41-45, 49, 52, 58-68, 70, 75 and 77 are rejected under 35 U.S.C. §102(b) as being anticipated by **Debenedetti et al.** (PTO-1449 ref. AW).

Applicant is referred to page 701, column 2, compounds 1 and 3 and associated explanatory text and Tables wherein the instant compounds and their pharmaceutical compositions are disclosed.

Applicant's arguments with respect to claim 1 have been considered but are deemed to be moot in view of the new grounds of rejection.

Claims 1-7, 12-14, 16-18, 20-21, 23-24, 37, 41-45, 49-50, 52, 58-62, 64-68, 70, 73, 75 and 77 are rejected under 35 U.S.C. §102(b) as being anticipated by **Castillo met al.** (PTO-1449 ref. AS).

Applicant is referred to page 839, column 2, compound 6 and associated explanatory text and Tables wherein the instant compound and its pharmaceutical compositions are disclosed.

Applicant's arguments with respect to claim 1 have been considered but are deemed to be moot in view of the new grounds of rejection.

Claims 80-107 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. §112.

Papers related to this application may be submitted to Group 1600 via facsimile transmission (FAX). The transmission of such papers must conform with the notice published in the Official Gazette (1096 OG 30, November 15, 1989). The telephone number to FAX (unofficially) directly to Examiner's computer is 571-273-0651. The telephone number for sending an Official FAX to the PTO is 703-872-9306.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner L. E. Crane whose telephone number is **571-272-0651**. The examiner can normally be reached between 9:30 AM and 5:00 PM, Monday through Friday.

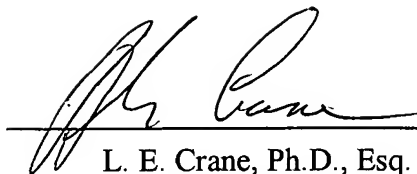
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson, can be reached at **571-272-0661**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group 1600 receptionist whose telephone number is **571-272-1600**.

LECrane:lec  
04/18/2005

Application/Control Number: 10/080,503  
Art Unit: 1623

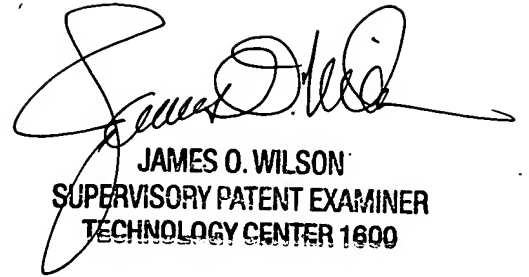
Page 13

A handwritten signature in black ink, appearing to read "L. E. Crane", is written over a horizontal line.

L. E. Crane, Ph.D., Esq.

Patent Examiner

Technology Center 1600

  
JAMES O. WILSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

Subject:

CASES WHICH REQUIRE MAILROOM CORRECTIONS

CASES WHICH REQUIRE  
MAILROOM CORRECTIONS

US APP NO: 10/080,503

EXAMINER CRANE

PLEASE COMPLETE THE FOLLOWING  
AND RETURN TO ME WITH THIS NOTE  
ATTACHED:

CORRECTIVE ACTION REQUESTED

4-28-05

CORRECTIVE ACTION COMPLETED

  -  -05